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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,229	12/21/2001	Tyler J. Mckinley	P0531	3458
23735	7590	02/07/2005	EXAMINER	
DIGIMARC CORPORATION 9405 SW GEMINI DRIVE BEAVERTON, OR 97008			MACKOWEY, ANTHONY M	
			ART UNIT	PAPER NUMBER
			2623	

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,229

Applicant(s)

MCKINLEY ET AL.

Examiner

Anthony Mackowey

Art Unit

2623

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/21/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/29/04; 12/02/04.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 20041228.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claim 1, drawn to encoding and registering a collectible article, classified in class 705, subclass 59.
- II. Claims 2-6, drawn to marking product packaging with visible and fluorescent ink to encode a digital watermark, classified in class 235, subclass 491.
- III. Claim 7, drawn to a photolithography method with pattern steganographically encoding plural bit digital data, classified in class 101, subclass 472.
- IV. Claim 8, drawn to a paper processing method with a pattern formed only along the edges conveying a steganographic orientation signal, classified in class 162, subclass 110.
- V. Claims 9-10, drawn to verifying a credit card transaction comprising presenting a card to an optical sensor, decoding digital watermark and confirming physical possession, classified in class 235, subclass 380.
- VI. Claim 11, drawn to software licensing classified in class 705, subclass 59.
- VII. Claim 12, drawn to a method of processing a magnetic stripe used on a card substrate, classified in class 235, subclass 380.
- VIII. Claim 13, drawn to printing a pattern on a printed circuit board, classified in class 713, subclass 176.
- IX. Claim 14, drawn to a roadside sign having both a visible and a covert steganographic message, formed thereon, classified in class 40, subclass 162.

Art Unit: 2623

- X. Claim 15, drawn to a method of checking a garment for authenticity, classified in class 382, subclass 100.
- XI. Claim 16, drawn to an article having a feature therein encoding digital data, said feature becoming exposed only through use, classified in class 382, subclass 100.
- XII. Claim 17, drawn to a method of rendering video using a data conveyed by a digital watermark to enhance fidelity, classified in class 382, subclass 100.
- XIII. Claims 18-27, a method comprising an image sensor apparatus capturing and decoding data steganographically encoded in a graphic presented on the display screen of a separate portable device, classified in class 382, subclass 100.

The inventions are distinct, each from the other because:

Inventions I, II, III, IV, V, VI, VII, VIII, IX, X, XI, XII and XIII are unrelated.

Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not capable of use together and have different modes of operation. Disclosed inventions include a photolithographic method, a method of credit card verification, software licensing, marking product packaging, rendering video, decoding a graphic displayed on a screen, etc. Inventions disclosed also have different functions. For example: the photolithographic method shapes an article such as a printing plate, software licensing enables software for use, and the method of rendering video enhances the fidelity of the video.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with William Conwell on 1/07/2005 a provisional election was made without traverse to prosecute the invention of a method comprising an image sensor apparatus capturing and decoding data steganographically encoded in a graphic presented on the display of a separate portable device, claims 18-27. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18-20, 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Patent 6,512,919 to Ogasawara and U.S. Patent 6,438,251 to Yamaguchi.

As to claim 18, Ogasawara discloses a method (col. 4, lines 58-61, The detailed description sets for the sequence of steps for operating the invention in connection with the illustrated embodiment), employing an image sensor apparatus (col. 15, line 68; col. 16, lines 47-49, Ogasawara teaches a digital image capture device such as a CCD camera system) and a separate device with a display screen (col. 22, lines 1-4, 19-21, Ogasawara teaches the system is

Art Unit: 2623

particularly useful applications in which information is displayed on an LCD display screen.), comprising using the image sensor apparatus to capture a representation of a graphic presented on the display screen of the device (col. 22, lines 59-63, Ogasawara teaches information is captured by placing the information within the visual image field of the system's digital camera.), and decoding said captured representation (col. 21, lines 18-20, Ogasawara teaches a program decodes the bar code image data.)

Ogasawara teaches capturing the image display of a small LCD display (col. 22, lines 19-26) but does not disclose the device with the display screen presenting the graphic as being portable. However, Ogasawara teaches the image capturing device is part of a wireless videophone (col. 15, lines 63-67), this videophone has a graphics display implemented as an LCD display (col. 16, lines 40-41). Ogasawara also teaches that information can be captured from almost any form of display means (col. 22, lines 59-62). The examiner takes Official Notice that portable devices such as PDA's (personal digital assistants), mobile phones, digital wristwatches or electronic pocket organizers commonly have display screens capable presenting graphics and/or alpha-numeric characters, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the graphic presented on the display screen of a portable device.

Ogasawara does not disclose obtaining plural-bit data steganographically encoded in the graphic. Yamaguchi discloses a method of invisibly embedding additional information into a main image (col. 3, lines 44-49) and a recovery operation to reproduce the embedded additional information (col. 4, lines 30-35). The teachings of Ogasawara and Yamaguchi are combinable because they both involve capturing and decoding images to obtain additional information. It

would have been obvious to one of ordinary skill in the art at the time the invention was made to have the steganographically encoded graphic of Yamaguchi, displayed, captured, and decoded as taught by Ogasawara. One would have been motivated to do so as it would allow a person to receive or send information to a desired location or party without obvious exposure of personal or financial information (i.e. electronic shopping as disclosed by Ogasawara).

As to claims 19 and 20, Ogasawara does not disclose the graphic comprises an image of a person or a proprietor of the portable device. However, Yamaguchi teaches the main image into which additional information is embedded may be a photograph of a person's face on an identification card (col. 3, lines 45-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the graphic comprise an image of a person or more specifically an image of a proprietor of the portable device because the device could be used as a form of personal identification, authorization or proof of ownership of the portable device.

As to claim 24, a method Ogasawara discloses a method (col. 4, lines 58-61, The detailed description sets for the sequence of steps for operating the invention in connection with the illustrated embodiment) employing an image sensor apparatus (col. 15, line 68; col. 16, lines 47-49, Ogasawara teaches a digital image capture device such as a CCD camera system), and a separate device with a display screen (col. 22, lines 1-4, 19-21, Ogasawara teaches the system is particularly useful applications in which information is displayed on an LCD display screen.), comprising using the image sensor apparatus to capture a representation of a graphic presented on the display screen of the device (col. 22, lines 59-63, Ogasawara teaches information is captured by placing the information within the visual image field of the system's digital

Art Unit: 2623

camera.), and decoding plural bit-machine readable information also represented on the display screen (col. 21, lines 18-20, Ogasawara teaches a program decodes the bar code image data.).

Ogasawara teaches capturing the image display of a small LCD display (col. 22, lines 19-26) but does not disclose the device with the display screen presenting the graphic as being portable. However, Ogasawara teaches the image capturing device is part of a wireless videophone (col. 15, lines 63-67), this videophone has a graphics display implemented as an LCD display (col. 16, lines 40-41). Ogasawara also teaches that information can be captured from almost any form of display means (col. 22, lines 59-62). The examiner takes Official Notice that portable devices such as PDA's (personal digital assistants), mobile phones, digital wristwatches or electronic pocket organizers commonly have display screens capable presenting graphics and/or alpha-numeric characters, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the graphic presented on the display screen of a portable device.

Ogasawara does not disclose the graphic includes a depiction of a proprietor of the portable device. However, Yamaguchi teaches the main image into which additional information is embedded may be a photograph of a person's face on an identification card (col. 3, lines 45-49). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the graphic comprise an image of a person or more specifically an image of a proprietor of the portable device because the device could be used as a form of personal identification, authorization or proof of ownership of the portable device.

Art Unit: 2623

Claim 25 is substantially claim 18 with the exclusion of decoding the plural bit information. Arguments analogous to those presented in claim 18 above are applicable to claim 25.

As to claim 26, the arguments with regard to decoding the plural bit information presented above in claim 18 are applicable to claim 26.

As to claim 27, arguments analogous to those presented for claims 19 and 20 are applicable to claim 27.

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Patent 6,512,919 to Ogasawara and U.S. Patent 6,438,251 to Yamaguchi as applied to claims 18 above, and further in view of U.S. Patent 6,359,837 to Tsukamoto.

The combination of Ogasawara and Yamaguchi does not disclose the portable device is also used display the current time or the portable device being a wristwatch. Tsukamoto discloses a wristwatch with a display that can display the current time and an image (col. 1, lines 58-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made have the graphic displaying device of the combination of Ogasawara and Yamaguchi be a wristwatch as taught by Tsukamoto because a wristwatch is one of the most common accessories worn by people and is securely fastened around a persons wrist thus preventing loss and theft, further protecting information embedded within the graphic.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Patent 6,512,919 to Ogasawara and U.S. Patent 6,438,251 to Yamaguchi as applied to claim 18 above, and further in view of U.S. Patent 6,385,591 to Mankoff.

The combination of Ogasawara and Yamaguchi does not disclose the portable device is a PDA. Mankoff discloses a method and system in which a PDA is capable of displaying an unalterable image with a digital watermark (col. 4, lines 25-29; col. 5, lines 29-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the graphic displaying device of the combination of Ogasawara and Yamaguchi be a PDA as taught by Tsukamoto. Motivation for doing so is due to the inherent properties and advantages of a PDA. A PDA has sufficient storage means for the graphic with the plural-bit steganographically embedded data and a PDA is also capable of many other useful tasks such as displaying the current time, managing addresses and phone numbers, acting as a calculator, etc. A PDA is also easily updated with the newest software and uploaded with data (such as the encoded graphic) through wired or wireless syncing with another computer.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 6,362,802 to Fujiwara et al. is cited for teaching a camera capturing an image on a flat panel display.

U.S. Patent 5,661,632 to Register is cited for teaching a hand held computer with a display screen with an image comprising of text of graphics.

U.S. Patent 5,960,085 to de la Huerga is cited for teaching a security badge with an LCD display presenting the image of a person.

U.S. Patent 6,192,138 to Yamadaji is cited for teaching an apparatus for capturing image data and embedding a digital watermark into the image.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Mackowey whose telephone number is (703) 306-4086. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AM
1/26/2005


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